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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,771	11/21/2000	Koji Hayashi	10449-028001	9013

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BOSTON, MA 02110

EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2653

(7)

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/717,771

Applicant(s)

HAYASHI, KOJI

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13,14,15. 6) ☐ Other:

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DETAILED ACTION

1. Applicant's response of 8/21/03 has been considered with the following results.

Specification

2. The amendment to the title of the invention is greatly appreciated and has been entered.

Drawings

The examiner has approved the new drawing submitted on 8/21/03. Again, applicant's cooperation is greatly appreciated.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

- ✓ 5. Claims 1-5,7-10 are rejected under 35 U.S.C. 103(a) as being obvious over Tsukihashi/EP 0914946

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37

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CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

In the above noted claims, there is an interruption of the recording when two conditions may occur. The first is the possibility of a buffer underrun and the second is a particular instance of the sync signal.

The first condition is met by the above Tsukihashi document, while the second is obvious thereover. Note that Tsukihashi also requires a particular sync signal condition. Applicant has acknowledged the existence of the claimed sync condition as being well known in the art.

It would have been obvious to modify the base system of Tsukihashi with the above noted well-recognized sync signal condition, motivation is to ensure proper signal recording. *The EP document is the EP equivalent of the US patent.*

The above analysis meets the limitations with respect to the independent claims.

With respect to dependent claims 2 & 4, the above analysis with respect to the sync pattern also meets such.

With respect to the limitations of claim 5, again, the system in Tsukihashi records in sectors, and hence sector address data is inherently present. The examiner considers such sector recording as inherently present in Tsukihashi due to the CD recording formats recognized as being well known – see the recognition of such at col. 1 lines 13-20.

With respect to the method claims 8 & 9 they are met when the above system operates.

6. Claims 1,2,7,8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2842262 further considered with the acknowledged prior art with respect to the sync pattern.

With respect to the independent apparatus claims 1, 7 and 10; the JP 2842262 document as discussed in col. 1, lines 40-41 in US patent 6584053 discloses in this environment the ability of prevent a recording/interruption thereof during a buffer underrun condition. Hence the examiner concludes that such

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at the very least must inherently possess/disclose a laser drive circuit, and a buffer underrun determination circuit and an interrupt control circuit. However, there is no clear depiction that such occurs while the laser beam is generated during the appropriate "relatively low power level in accordance with the data". The examiner interprets this to read upon the acknowledged low level signals as discussed in applicant's disclosure.

It is well known in this environment to commence recording upon proper recognition/detection of the sync signal period and Official notice is taken thereof.

The "relatively low power level" being part of the sync pattern is acknowledged as being part of the cd format prior art.

It would have been obvious to modify the base system of JP 2842262 with well-known sync pattern detection circuitry to ensure proper signal recording.

With respect to dependent claim 2, again this is met by the acknowledged prior art cd sync pattern format.

The limitations of the method claim are met when the above prior art system(s) operate.

Applicant's cooperation is respectfully requested in providing a copy of such identified JP document to complete the search report.

7. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-40302 further considered with either Yamasaki et al and Yoshikawa, or alternatively with Yokota.

Applicant's attention is drawn to either the previously supplied MAT of the above JP document or EP 0974966, the EP equivalent. In either case, the ability of generating a decision from a buffer underrun element that a underrun may occur is provided for. This then interrupts the appropriate circuitry for generating the information onto the record medium. There is no discussion that the interruption circuit also is aware of a "low power level".

The documents to Yamasaki et al & Yoshikawa disclose/teach in this environment the ability of interrupting/control the laser during an abnormal condition of the recording laser power. Although it is not specifically discussed as being a "low power level", that such (low power level) is part of an "abnormal condition" is considered to be inherent.

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Alternatively, Yokota teaches the ability of detecting a malfunctioning condition and appropriately controlling the laser appropriately – see col. 14 lines 21-49 which specify inhibiting when the detected level is lower than a predetermined level.

It would have been obvious to modify the base system of JP 2000-40302/EP 0974966 with the above additional teaching from either the Yokota or Yamasaki et al & Yoshikawa combination to provide for a second condition of “low power level” as well as the buffer underrun possibility, motivation is to appropriately control the laser so as to inhibit damage to the recording medium by inhibiting recording during recognized conditions.

Furthermore, with respect to claims 3 and 9, the additional address memory and synchronizing circuit and restart circuit and functions thereof (claim 3), while claim 9 is interpreted as the analogous method claim.

These additional elements are already present in the above noted JP document -EP, see the descriptions of elements 19, 20 and 15 and the overall operation thereof.

Response to Arguments

8. Applicant's arguments filed 8/21/03 have been fully considered but they are not persuasive. The examiner notes that applicant has yet to perfect his priority papers and hence the JP/EP document reliance is maintained.

With respect to the arguments focusing on the secondary references, the examiner notes that the claims merely require a low power level of the laser and hence the rejection thereon is maintained.

There is no nexus between the low power level and the sync pattern in the claims.

9. Claims 4 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 3 above, and further in view of the acknowledged prior art with respect to the presence of the sync signal pattern and Koishi/Official notice.

Claim 4 requires the additional ability of the sync pattern data as being the defined “low power level”.

The existence of these sync patterns is acknowledged by applicant as being well known. Hence to include such a pattern, or alternatively to use the above system in which the acknowledged cds are the record medium is considered obvious, motivation is to permit the system to record upon established cd standards.

Furthermore, these claims are interpreted to limit the “low power level” as the sync pattern. As noted in Koishi when a signal dropout occurs, his system interrupts recording. Alternatively, loss of sync signal(s), patterned or otherwise and the subsequent suspending/interrupting, stopping of a recording function is well known. The use of

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VCRs in order to record any information requires appropriate control signals/sync. - time base errors, drop out, and upon loss of such the system operation is interrupted/stopped. Official notice is taken of recording systems that no longer perform such an operation upon loss of sync. /time base.

It would have been obvious to modify the system as relied upon in paragraph 9 above with respect to claim 3 and modify such with the additional sync. pattern (acknowledged prior art) for the reasons stated above, and to further modify this with the additional loss of sync condition as further taught by Koishi/Official notice, motivation is to prevent any system operation until appropriate control signal/time base is provided for to ensure proper recording.

With respect to the limitations of claim 5, they are already present in the base JP/EP document and no further motivation is considered necessary.

10. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-63433/Kuroda et al further considered with either Yamasaki et al & Yoshikawa, or alternatively with Takasugi.

As found in the Kuroda et al document – US equivalent of the JP 10-63433 system, the ability to provide for an interruption of recording predicated upon the detection that a buffer underrun condition may occur, as well as permitting re-starting at the appropriate locations is disclosed in these documents. There is no additional ability of having the interruption to also include a “low power level” detection.

The documents to Yamasaki et al & Yoshikawa disclose/teach in this environment the ability of interrupting/control the laser during an abnormal condition of the recording laser power. Although it is not specifically discussed as being a “low power level”, that such (low power level) is part of an “abnormal condition” is considered to be inherent.

Alternatively, Takasugi teaches the ability of detecting a malfunctioning condition and appropriately controlling the laser appropriately – see the description of figure 11, which specify inhibiting when the recording power level deviates from the appropriate limited range.

It would have been obvious to modify the base system of JP 10-63433/Kuroda et al with the above additional teaching from either the Yokota or Yamasaki et al, or either further with Takasugi, in order to provide for the second condition of “low power level” as well as the buffer underrun possibility, motivation is to appropriately control the laser so as to inhibit damage to the recording medium by inhibiting recording during recognized conditions, and or to reduce unnecessary signal processing time by appropriately interrupting the recording process when improper system conditions exist.

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With respect to claims 3 and 9, these includes the additional address memory and synchronizing circuit and restart circuit and functions thereof (claim 3), while claim 9 is interpreted as the analogous method claim.

These additional elements are already present in the above noted JP document US, see the descriptions of elements within block S and as further depicted in figure 4 and discussed therewith e.g. col. 2 line 55 – summary of the invention.

Response to Arguments

11. Applicant's arguments with respect to claims have been considered but are not persuasive, The examiner concludes that the motivation for combining the secondary references as stated, i.e., to inhibit the damage done to the record medium and hence improving the system to Kuroda.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Hard copies of the application files are now separated from this examining corps, hence the examiner can answer no questions that requires a review of the file without sufficient lead-time.

Any inquiries concerning missing papers/references, etc. must be directed to Group 2600 Customer Services at (703) 306-0377.

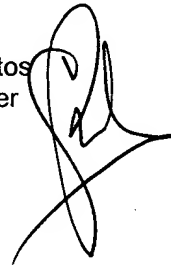
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Aristotelis M Psitos
Primary Examiner
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AMP